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| EXAMINER | |
|---|---|
| FARAGALLA, MICHAEL A | |
| **ART UNIT** | **PAPER NUMBER** |
| 2617 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/785,365 | WEINSTEIN, ELIAHU | |
| | Examiner | Art Unit | |
| | Michael Faragalla | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

1. Priority to the provisional application 60/449,623 filed on 02/24/2203 is acknowledged.

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "PROVIDING A HIGH SPEED DATA MODEM BASED ON MIMO TECHNOLOGY USING CABLE OR SINGLE ANTENNA".

### *Claim Rejections - 35 USC § 112*

3. Claims **1-37** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consider **Claims 1-37,** the applicant mentions that user interfaces transmit data at high transfer rates, that is considered indefinite, since the term high transfer rates does not have a specific meaning. That is to say, no range is given.

***Claim Rejections - 35 USC § 103***

4. Claims **1,6-11,25,30-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shattil (Publication number: 2003/0147655)** in view of **Silva et al (Publication number: 2004/0224637).**

Consider **Claim 1,** Shattil shows a wireless fast modem system for transmitting data between two or more user interfaces at high transfer rates comprising:
A first modem means and a second modem means interconnected by a conventional wireless communication link (figures 4B and 13B), whereby each of said first modem means and second modem means further comprises:
(a) Single antenna means (figure 4B; paragraphs 112 and 113); (antenna element 424 is read as single antenna means).
(b) Two or more multiple input/multiple output (MIMO) wireless transceiver means (figure 4B; figure 15; paragraph 50).
(c) An antenna array reduction or expansion chamber associated with said two or more MIMO wireless transceivers (fig. 4C); (read as element 470 in figure 4C).

(d) A frequency spectrum shifting module associated with said two or more MIMO wireless transceivers; whereby said first modem means and said second modem means act as a high speed transmitter and a high speed receiver of data transferred between two user interfaces through the conventional wireless telecommunications link (figure 4A; paragraph 112); (converter 422 converts the CI signals to the appropriate transmit frequencies).

However, Shattil discloses a MIMO wireless transceiver, but does not specifically show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver.

In related art, Silva e t al show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver (figure 2).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Silva et al into the teaching of Shattil in order to route data communication transmissions to the client devices via directed communication beams that are emanated from an antenna assembly (Silva et al, abstract).

Consider **Claim 25,** Shattil shows a method for making a wireless fast modem system for transmitting data between two or more user interfaces at high transfer rates comprising the steps of:

Providing a first modem means and a second modem means interconnected by a conventional wireless telecommunications link (figures 4B and 13B), whereby each of said first modem means and second modem means further comprises:

(a) Single antenna means (figure 4B; paragraphs 112 and 113); (antenna element 424 is read as single antenna means).

(b) Two or more multiple input/multiple output (MIMO) wireless transceiver means (figure 4B; figure 15; paragraph 50).

(c) An antenna array reduction or expansion chamber associated with said two or more MIMO wireless transceivers (fig. 4C); (read as element 470 in figure 4C).

(d) A frequency spectrum shifting module associated with said two or more MIMO wireless transceivers; whereby said first modem means and said second modem means act as a high speed transmitter and a high speed receiver of data transferred between two user interfaces through the conventional wireless telecommunications link (figure 4A; paragraph 112); (converter 422 converts the CI signals to the appropriate transmit frequencies).

However, Shattil discloses a MIMO wireless transceiver, but does not specifically show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver.

In related art, Silva e t al show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver (figure 2).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Silva et al into the teaching of Shattil in order to route data communication transmissions to the client devices via directed communication beams that are emanated from an antenna assembly (Silva et al, abstract).

Consider **Claims 6 and 30,** Shattil as modified by Silva et al shows the space-time modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, wherein said two or more multiple input/multiple output (MIMO) space-time wireless transceiver means, includes conventional interface electronics to make said transceivers compatible with existing industry standard protocols (figure 4C; paragraphs 112, and 113).

Consider **Claims 7 and 31,** Shattil as modified by Silva e t al shows the space-time modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, wherein said antenna array reduction or expansion chamber associated with said two or more MIMO space-time wireless transceivers includes outside shielding to prevent adverse electromagnetic interference and to prevent said MIMO space-time transceivers from generating interference adverse to other radio systems (figure 4C).

Consider **Claims 8 and 32,** the combination of Shattil and Silva et al shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless

space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, wherein said antenna array reduction or expansion chamber associated with said two or more MIMO space-time wireless transceivers includes one or more input antennas and one or more transmission antennas, whereby the number of input antennas is greater than the number of transmission antennas within any given antenna array.

Consider **Claims 9 and 33,** Shattil as modified by Silva e t al shows the space-time modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, wherein said antenna reduction or expansion chamber is replaced by a digital signal processing (DSP) processor for the purpose of creating a unique scattering rich space-time signature to aid in the separation of signals among the input antennas within said antenna array (paragraph 158).

Consider **Claims 10 and 34,** Shattil as modified by Silva e t al shows the space-time modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, wherein said frequency spectrum shifting module includes a down converter when associated with the first modem means, the

transmitting modem, for the purpose shifting the frequency spectrum from microwave to a lower spectrum, down to base-band, in order to make said first modem compatible with standard carrier frequencies of existing infrastructure (figure 13A; paragraph 178).

Consider **Claims 11 and 35,** the combination of Shattil and Silva et al shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 10, as well as the method for making a wireless space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 34, wherein said down converter includes an oscillator with a frequency expressed as:

Ffssm = Fvco-Fc

Where Ffssm is the frequency of the frequency spectrum shift module, Fvco is the frequency of the voltage control oscillator frequency, and Fc is the carrier frequency, whereby the voltage controlled oscillator is a component of said first modem means, the transmitter modem.

5. Claims **13,18-23 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shattil (Publication number: 2003/0147655)** in view of **Silva et al (Publication number: 2004/0224637)** and further in view of **Sew (Publication number: US 2004/0030868).**

Consider **Claim 13,** Shattil shows a fast modem system for transmitting data between two or more user interfaces at high transfer rates comprising:

A first modem means and a second modem means interconnected by a conventional telecommunications link (figures 4B and 13B), whereby each of said first modem means and second means further comprises:

(a) A single antenna means (figure 4B; paragraphs 112 and 113); (antenna element 424 is read as single antenna means).

(b) Two or more multiple input/multiple output (MIMO) wireless transceiver means (figure 4B; figure 15; paragraph 50).

(c) An antenna array reduction or expansion chamber associated with said two or more MIMO wireless transceivers (fig. 4C); (read as element 470 in figure 4C).

(d) A frequency spectrum shifting module associated with said two or more MIMO wireless transceivers; whereby said first modem means and said second modem means act as a high speed transmitter and a high speed receiver of data transferred between two user interfaces through the conventional telecommunications link (figure 4A; paragraph 112); (converter 422 converts the CI signals to the appropriate transmit frequencies).

However, Shattil discloses a MIMO wireless transceiver, but does not specifically show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver.

In related art, Silva e t al show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver (figure 2).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Silva et al into the teaching of Shattil in order to route data communication transmissions to the client devices via directed communication beams that are emanated from an antenna assembly (abstract).

However, Shattil in view of Silva et al does do not disclose that two modems can communicate with each other through a wireless or a hard wired telecommunications link.

In related art, Sew discloses that two modems can communicate with each other through a wireless or a hard-wired telecommunications link (abstract; figure 1).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Sew into the teaching of Shattil and Silva et al in order to solve problems such as processing speed (Sew, abstract).

Consider **Claim 37,** Shattil shows a method for making a fast modem system for transmitting data between two or more user interfaces at high transfer rates comprising the steps of:

Providing a first modem means and a second modem means interconnected by a conventional telecommunications link (figures 4B and 13B), whereby each of said first modem means and second modem means further comprises:

(a) A single antenna means (figure 4B; paragraphs 112 and 113); (antenna element 424 is read as single antenna means).

(b) Two or more multiple input/multiple output (MIMO) wireless transceiver means (figure 4B; figure 15; paragraph 50).

(c) An antenna array reduction or expansion chamber associated with said two or more MIMO wireless transceivers (fig. 4C); (read as element 470 in figure 4C).

(d) A frequency spectrum shifting module associated with said two or more MIMO wireless transceivers; whereby said first modem means and said second modem means act as a high speed transmitter and a high speed receiver of data transferred between two user interfaces through the conventional telecommunications link (figure 4A; paragraph 112); (converter 422 converts the CI signals to the appropriate transmit frequencies).

However, Shattil discloses a MIMO wireless transceiver, but does not specifically show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver.

In related art, Silva e t al show that the MIMO wireless transceiver is a MIMO space-time wireless transceiver (figure 2).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Silva et al into the teaching of Shattil in order to route data communication transmissions to the client devices via directed communication beams that are emanated from an antenna assembly (abstract).

However, Shattil in view of Silva et al does do not disclose that two modems can communicate with each other through a wireless or a hard wired telecommunications link.

In related art, Sew discloses that two modems can communicate with each other through a wireless or a hard-wired telecommunications link (abstract; figure 1). Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Sew into the teaching of Shattil and Silva et al in order to solve problems such as processing speed (Sew, abstract).

Consider **Claim 18,** Shattil as modified by Silva et al and as further modified by Sew shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, wherein said two or more multiple input/multiple output (MIMO) space-time wireless transceiver means, includes conventional interface electronics to make said transceivers compatible with existing industry standard protocols (figure 4C; paragraphs 112, and 113).

Consider **Claim 19,** Shattil as modified by Silva et al and as further modified by Sew shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, wherein said antenna array reduction or expansion chamber associated with said two or more MIMO space-time wireless transceivers includes outside shielding to prevent adverse electromagnetic interference and to prevent said MIMO space-time transceivers from generating interference adverse to other radio systems (figure 4C).

Consider **Claim 20,** Shattil as modified by Silva et al and as further modified by Sew shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, wherein said antenna array reduction or expansion chamber associated with said two or more MIMO space-time wireless transceivers includes one or more input antennas and one or more transmission antennas, whereby the number of input antennas is greater than the number of transmission antennas within any given antenna array.

Consider **Claim 21,** Shattil as modified by Silva et al and as further modified by Sew shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, wherein said antenna reduction or expansion chamber is replaced by a digital signal processing (DSP) processor for the purpose of creating a unique scattering rich space-time signature to aid in the separation of signals among the input antennas within said antenna array (paragraph 158).

Consider **Claim 22,** Shattil as modified by Silva et al and as further modified by Sew shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, wherein said frequency spectrum shifting module includes a down converter when associated with the first modem means, the transmitting modem, for the purpose shifting the frequency spectrum from microwave to a lower spectrum, down to base-band, in order to make

said first modem compatible with standard carrier frequencies of existing infrastructure (figure 13A; paragraph 178).

Consider **Claim 22,** Shattil as modified by Silva et al and as further modified by Sew shows the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 22, wherein said down converter includes an oscillator with a frequency expressed as:

Ffssm = Fvco-Fc

Where Ffssm is the frequency of the frequency spectrum shift module, Fvco is the frequency of the voltage control oscillator frequency, and Fc is the carrier frequency, whereby the voltage-controlled oscillator is a component of said first modem means, the transmitter modem.

6. Claims **2-5 and 26-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shattil (Publication number: 2003/0147655)** in view of **Silva et al (Publication number: 2004/0224637)** and further in view of **Watanabe et al (Patent number: 6,731,602).**

Consider **Claims 2,4, 26, and 28,** Shattil as modified by Silva et al show the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless space-

time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, wherein said first modem acts as a space-time transmitter, and further includes one or more output channels, and further includes one or more input channels, but fail to show that at least one of which transmits forward correction coding, and further fails to teach that at least one of which receives forward correction coding transmitted by said first modem means.

However, in related art, Watanabe et al show that at least one of the output channels transmits forward correction coding and further teaches that at least one of the input channels receives forward correction coding transmitted by said modem means (column 13, lines 44-60; figure 7B).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Watanabe et al into the teaching of Shattil and Silva et al in order to minimize the amount of delay (Watanabe et al, column 1, lines 58-67; column 2, lines 1-2).

Consider **Claims 3, and 27,** Shattil as modified by Silva et al and as further modified by Watanabe et al show the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 2, as well as the method for making a wireless space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 26, wherein said one or more output channels includes a back channel which receives feedback from said second modem means relating to said forward correction coding,

and thereby receives signal to noise information and bit error rate information to facilitate requests to retransmit corrupt data packets (paragraph 163).

Consider **Claims 5 and 29,** the combination of Shattil and Silva et al and Watanabe teaches the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 4, as well as the method for making a wireless space-time fast modem system for transmitting between two or more user interfaces at high transfer rates according to claim 28, wherein at least one of said input channels is used to receive error information, analyze said error information and transfer a continuous space-time training sequence as a means to allow for reduction of channel common code noise and compensation for Doppler frequency shift and Doppler spread without impacting channel capacity in high speed mobile applications.

7. Claims **12 and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shattil (Publication number: 2003/0147655)** in view of **Silva et al (Publication number: 2004/0224637)** and further in view of **Binder (Publication number: 2006/0209847).**

Consider **Claims 12 and 36,** Shattil as modified by Silva et al discloses the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 1, as well as the method for making a wireless space-

time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 25, but fail to specifically show that said multiple input/multiple output (MIMO) space-time wireless transceiver means utilize a single input/single output (SISO) repeater, or two or more SISO repeaters in series, to extend its operating distance.

However, in related art, Binder shows that said multiple input/multiple output (MIMO) space-time wireless transceiver means utilize a single input/single output (SISO) repeater, or two or more SISO repeaters in series, to extend its operating distance (abstract; figure 4; paragraph 83).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Binder into the teaching of Shattil and Silva et al in order to dynamically configure nodes in a network (Binder; paragraph 23).

8. Claims **14-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shattil (Publication number: 2003/0147655)** in view of **Silva et al (Publication number: 2004/0224637)** and further in view of **Sew (Publication number: US 2004/0030868)** and further in view of **Watanabe et al (Patent number: 6,731,602).**

Consider **Claims 14 and 16,** Shattil in view of Silva et al and further in view of Sew disclose the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, wherein said first modem acts as a space-time transmitter, and further includes one or more output channels and

one or more input channels, and wherein said second modem acts as a space-time receiver, but fail to show that at least one of which transmits forward correction coding, and further fails to teach that at least one of which receives forward correction coding transmitted by said first modem means.

However, in related art, Watanabe et al show that at least one of the output channels transmits forward correction coding and further teaches that at least one of the input channels receives forward correction coding transmitted by said modem means (column 13, lines 44-60; figure 7B).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Watanabe et al into the teaching of Shattil and Silva et al, and Sew in order to minimize the amount of delay (Watanabe et al, column 1, lines 58-67; column 2, lines 1-2).

Consider **Claim 15,** Shattil as modified by Silva et al and as further modified by Sew discloses the space-time fast modem system for transmitting data between two or more interfaces at high transfer rates according to claim 14, wherein said one or more output channels includes a back channel which receives feedback from said second modem means relating to said forward correction coding, and thereby receives signal to noise information and bit error rate information to facilitate requests to retransmit corrupt data packets (paragraph 163).

Consider **Claim 17,** the combination of Shattil and Silva et al, and Watanabe teaches the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 16, wherein at least one of said input channels is used to receive error information, analyze said error information and transfer a continuous space-time training sequence as a means to allow for reduction of channel common code noise and compensation for Doppler frequency shift and Doppler spread without impacting channel capacity in high speed mobile applications.

9. Claim **24** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shattil (Publication number: 2003/0147655)** in view of **Silva et al (Publication number: 2004/0224637)** and further in view of **Sew (Publication number: US 2004/0030868)** and further in view of **Binder (Publication number: 2006/0209847).**

Consider **Claim 24,** Shattil as modified by Silva et al and as further modified by Sew discloses the space-time fast modem system for transmitting data between two or more user interfaces at high transfer rates according to claim 13, but fail to specifically show that said multiple input/multiple output (MIMO) space-time wireless transceiver means utilize a single input/single output (SISO) repeater, or two or more SISO repeaters in series, to extend its operating distance.

However, in related art, Binder shows that said multiple input/multiple output (MIMO) space-time wireless transceiver means utilize a single input/single output (SISO)

repeater, or two or more SISO repeaters in series, to extend its operating distance (abstract; figure 4; paragraph 83).

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to incorporate the teaching of Binder into the teaching of Shattil, Silva et al, and Sew in order to dynamically configure nodes in a network (Binder; paragraph 23).

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) LOW POWER PROCESSOR (Patent number: 6,604,202).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Faragalla whose telephone number is (571) 270-1107. The examiner can normally be reached on Mon-Fri 7:30 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Faragalla

Patent Examiner

03/29/2007

NICK CORSARO
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